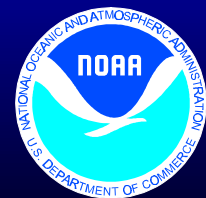


AWIPS

Briefing to the DOC Budget Office



AWIPS

What?

- AWIPS is the primary computer & communications system of the NWS
- Provides for the assimilation and display of all operational radar, satellite and numerical guidance data at NWS Forecast Offices and River Forecast Offices
- Enables Scientific Weather and River Forecasting
 - Provides severe weather and flood forecasting tools

Why?

- Provides faster forecast formulation and dissemination
- Exploits Scientific Advances
- Supports Commercial Weather Service Providers
- Reduces NWS Infrastructure costs



AWIPS

Current Status

- **AWIPS at 139 Offices**
 - Deployment complete June, 1999; Base systems commissioned August 2000
- **Software Build 5 is first major software upgrade**
 - Three year effort (FY 00 – FY 02)
 - Three software releases
 - Second release in December 2001
 - Third release in FY02
- **Build 5 remains on schedule and budget**



AWIPS

Benefits

- **AWIPS Build 5**
 - **Provide New Forecast Tools**
 - System for convective analysis and nowcasting (SCAN) improves lead time for warnings, probability of detection
 - Warning decision assistance
 - **Provide higher resolution radar for warning assistance**
 - **Improve inter office service backup**
 - **Display of additional local weather observations**
 - **Flash flood modeling capability**



AWIPS

Technology Infusion - Current Status

- Consistent with independent Review Team recommendation to increase capacity
- Technology Infusion Initiatives begun in FY01
 - Increase Satellite Broadcast Bandwidth
 - Expanded data broadcast of numerical guidance and satellite data from 3 to 4.5 MB/sec.
 - Catastrophic Backup (Master Ground Station and Network Control Facility)
 - Provide Redundant Master Ground Station (Operational August 2001) and Network Control Facility (FY 03)
 - AWIPS/NEXRAD (ORPG) Integration
 - System upgrades to accommodate higher volume radar data produced by NEXRAD ORPG
 - Data Management Enhancements
 - System upgrades to improve AWIPS data transmission, storage and retrieval
 - Hydromet Decision Assistance
 - Develop and implement automated decision tools for marine, aviation, fire and winter weather
 - NCEP/OCONUS
 - Allow global scale numerical models; analyze and display numerical model sources not presently available



AWIPS

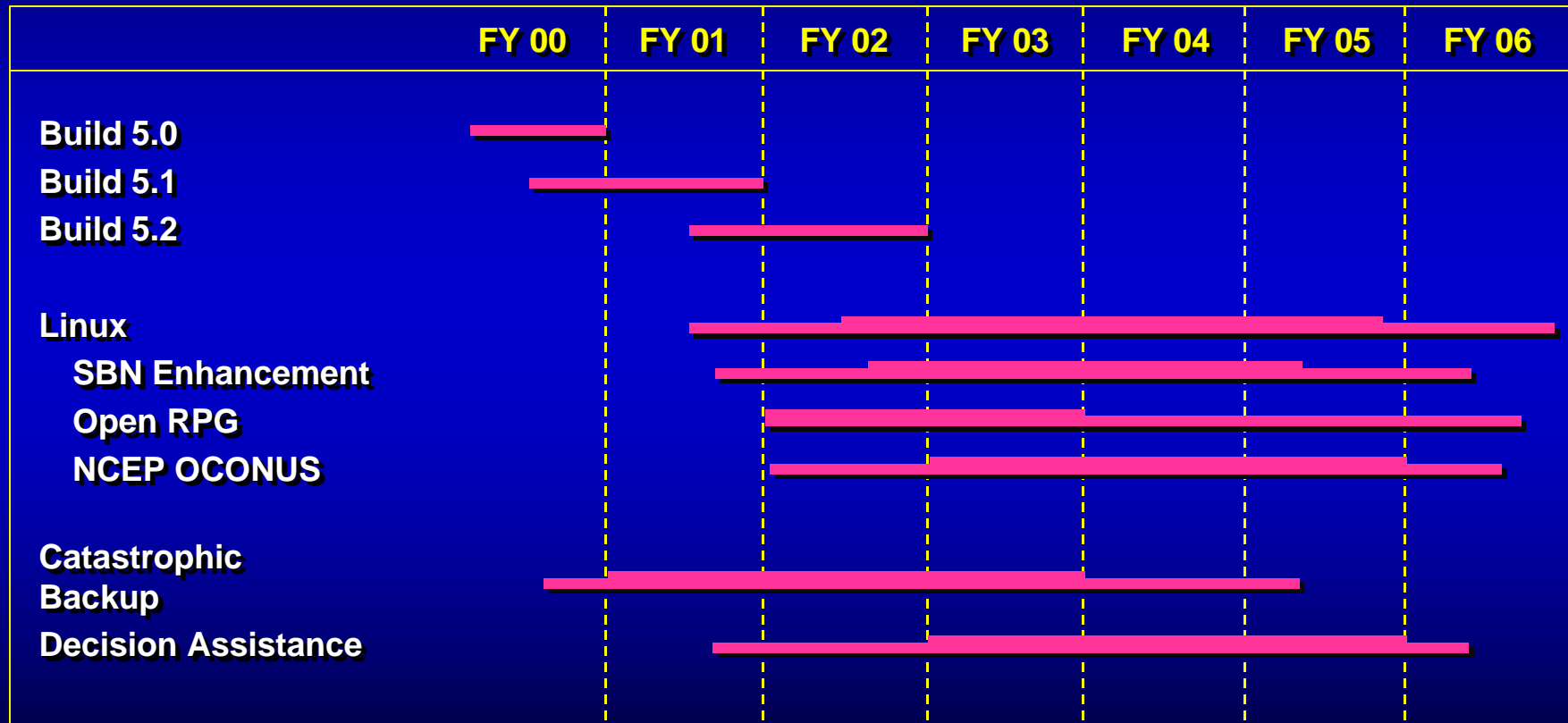
Technology Infusion - Current Status

- **Evolve AWIPS architecture to LINUX**
 - **Move from UNIX to LINUX increases processing capacity ten times.**
 - **Supports technology infusion initiatives**
 - **Improve performance, data receipt, processing, distribution**
 - **Higher reliability; lower maintenance**



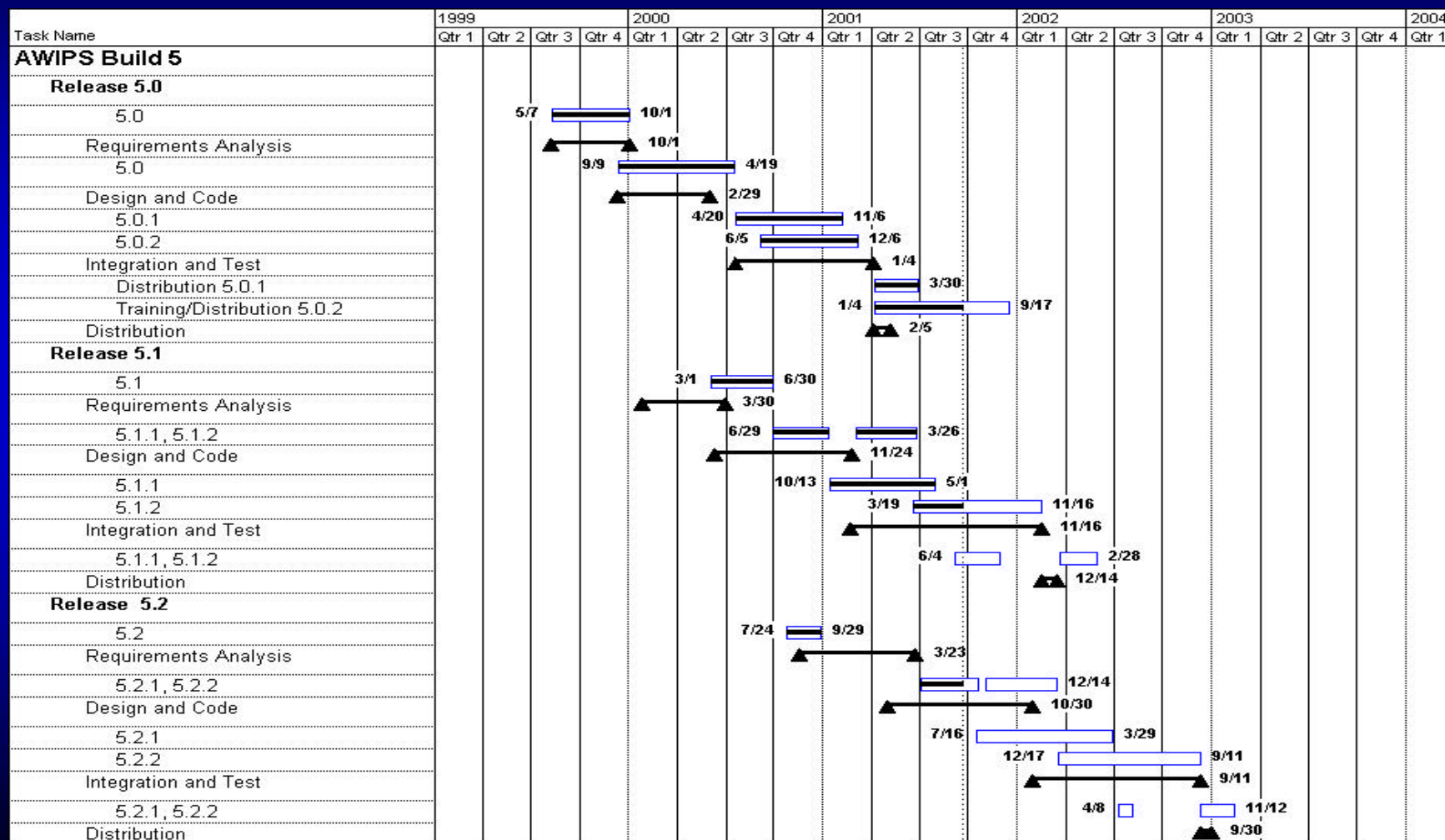
AWIPS

Technology Infusion Schedule

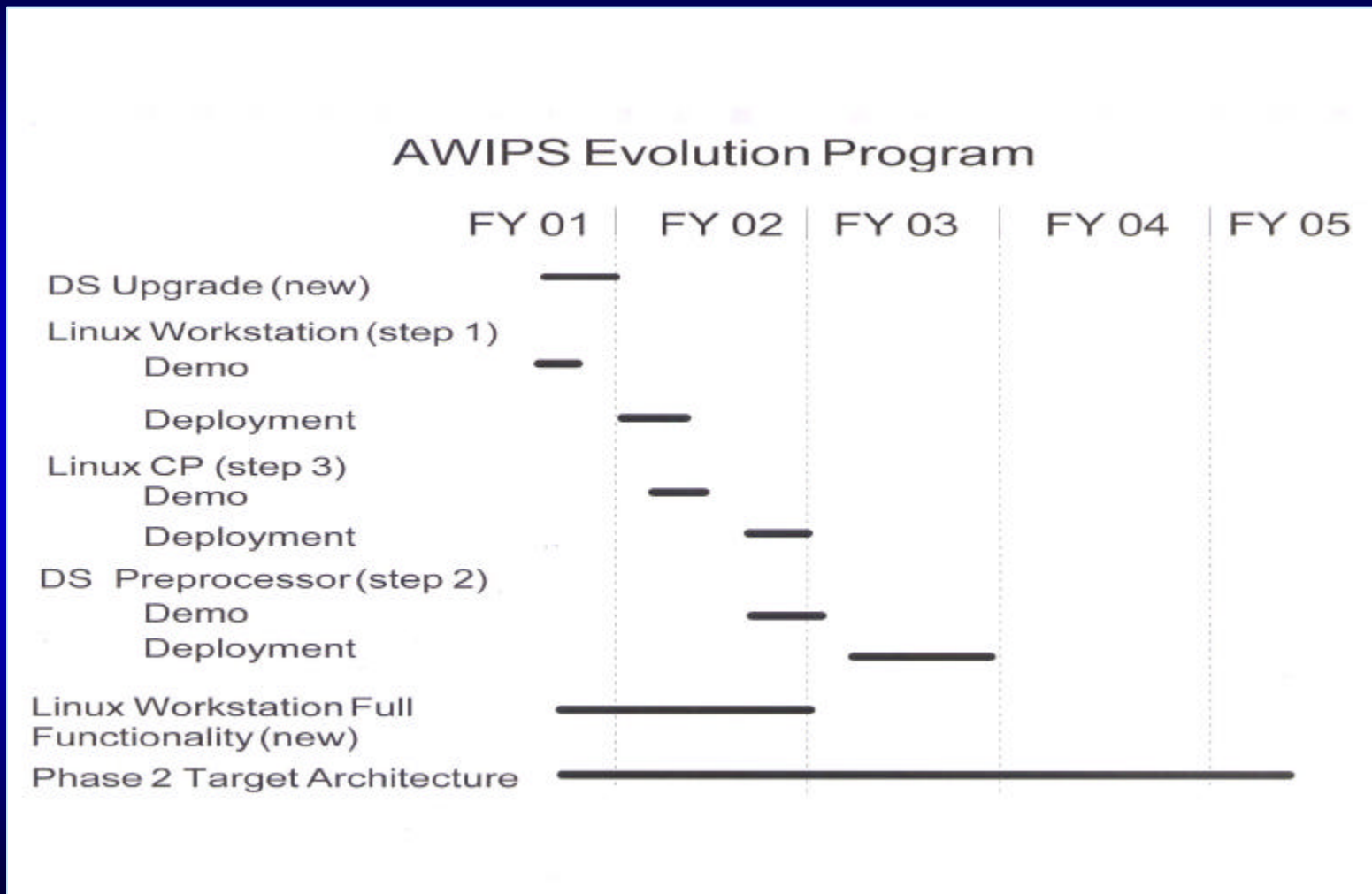


AWIPS

Build 5 Schedule



AWIPS Evolution LINUX Schedule



AWIPS Budget

\$ in Thousands

	FY00 & Prior	FY01	FY02	Cost to Complete	Total	
Build 5	9,057	11,100	5,460		25,617	
ORPG Integration	750	0	2,215	12,600	15,565	
Data Mgt. Enhancements	768	180	512	6,545	8,005	
NCEP - OCONUS		834	1,550	9,575	11,959	
Hydromet Dec. Assistance		300	420	5,215	5,285	
Catastrophic Backup	239	1,264	1,555	5,404	8,462	
SBN Bandwidth			1,788	7,493	9,281	
Program Management	4,750	2,586	2,764	14,496	24,596	
Total	15,564	16,264	16,264	61,328	108,940	



AWIPS

- Issues
 - Communications Bandwidth Increases
 - Higher Resolution Radar Data
 - Processing Capability to implement new science applications
 - Sustaining technology infusion

